PSR® Physicians for Social Responsibility

1985 NOBEL PEACE PRIZE

United States Affiliate of International Physicians for the Prevention of Nuclear War

Comments of Barbara Gottlieb
to the U.S. Environmental Protection Agency
Concerning "Strengthening Transparency in Regulatory Science"
Docket ID No. EPA-HQ-OA-2018-0259

July 17, 2018

Good morning. My name is Barbara Gottlieb. I am the director for environment and health at Physicians for Social Responsibility, a physician-led, nationwide organization that works to protect human life from the gravest threats to health and survival. I'm here to express Physicians for Social Responsibility's opposition to the proposed rule, "Strengthening Transparency in Regulatory Science."

The U.S. EPA plays a critical role in keeping our nation and our families safe from environmental exposures that can cause illness and death. We thank you for that – and we count on you for it. Because your role is vital to our health and well-being, the nation relies on you to formulate and enforce the most effective protections possible, based on the best available science. The medical and scientific studies that underlie the EPA's decisions must be objective, vetted, and present a full and accurate assessment of the threats to health posed by the pollutants under study.

To provide those full and accurate assessments, studies need to relate exposure levels to actual health outcomes in real human beings, and to amass large data bases so that researchers can draw valid conclusions.

In order to have reliable data and large sample sizes, researchers frequently study the records of patients treated in hospitals. Hospital records, of course, include personal identifiers, and disclosure of those identifiers would violate privacy and confidentiality laws. Thus, the best available data for many health studies cannot be – in the literal sense – fully and openly shared.

However, to refuse to consider scientific studies simply because they include personal identifiers would be a great mistake. First of all, it is not necessary. Reviewers wanting to reproduce a study in order to validate it can arrange to have confidential access to key data. Furthermore, scientists can assess the merits of published research without seeing its data directly by considering such publicly released features as the study's research design, the methods used for data collection and analysis, and comparisons with previous results.

Furthermore, to exclude credible peer-reviewed scientific studies because the personal identifiers cannot be released under the law, is to exclude from the EPA's consideration many important and valid studies. This would greatly hamper our ability to understand the impacts of serious, even deadly, environmental pollutants. Several of my colleagues will testify later today to the potential impact of this proposed rule on our understanding of pollutants from coal-fired power plants, and children's exposure to lead in drinking water. I would like to bring your attention several other studies that also might be lost to consideration, yet are vitally important. These are studies that reveal statistical correlations between exposure to emissions from hydraulic fracturing ("fracking") for oil and gas, and serious impacts on health. I will mention three:

1. A study by University of Pennsylvania and Columbia University researchers and published in 2015 in the journal *PLoS ONE*, found that drilling and fracking activity was associated with increased rates of hospitalization in Pennsylvania. The study examined hospitalization data between 2007 and 2011 and found that inpatient prevalence rates surged for people living near shale gas wells, in regard to hospitalizations for cardiology, neurology, cancer, skin conditions, and urological problems. In communities with the most wells, the rate of cardiology hospitalizations was 27 percent higher than in control communities with no fracking.[1] These findings obviously are of great concern; we would not want them to be lost to the EPA as it considers regulation of emissions from fracking sites and infrastructure. Yet because the data include patients' names, diagnoses and addresses, this valuable study could under the proposed rule be excluded from EPA consideration.

2. Another study conducted in Pennsylvania, this one between 2005 and 2012, found that living near fracking operations significantly increases asthma attacks. This study was conducted by researchers at Johns Hopkins University and was based on a study of 35,000 medical records of people with asthma in north and central Pennsylvania.[2] Again, 35,000 medical records. This is just the sort of study that we want EPA to base its health-protective regulations on: a robust and objective database, conducted by researchers at a respected institution and published in the *Journal of the American Medical Association Internal Medicine*. Yet should the proposed rule be adopted, this study could be disallowed because its 35,000 medical records cannot easily and efficiently be stripped of personal identifiers.

3. One final study. This study, by the Johns Hopkins Bloomberg School of Public Health and other researchers, used data from the Geisinger Health System on 9,384 pregnant women and their 10,496 newborns between January 2009 and January 2013. Looking at 40 counties in north and central Pennsylvania, the researchers developed an index for proximity to fracking wells based on distance from the women's homes, stage of drilling and depth of wells dug, and the amount of gas that was produced at those wells during the pregnancies. They found that pregnant women who lived near active fracking operations in Pennsylvania were at a 40 percent

---

[1] Jemielita T., Gerton G. L., Neidell, M., Chillrud S., Yan B., Stute, M., . . . Panettieri, Jr., R. A. (2015), Unconventional gas and oil drilling is associated with increased hospital utilization rates. PLoS ONE 10(7), e0131093. doi: 10.1371/journal.pone.0131093

[2] Rasmussen, S. G., Ogburn, E. L., McCormack, M., Casey, J. A., Bandeen-Roche, K. Mercer, D. G., & Schwartz, B. S. (2016). Association between unconventional natural gas development in the Marcellus Shale and asthma exacerbations. JAMA Internal Medicine. Advance online publication. doi: 10.1001/jamainternmed.2016.2436

increased risk of giving birth prematurely.[3] Let me remind us that premature birth is the leading cause of infant death in the United States. So we're talking about health data that indicate that fracking operations could put newborn babies at risk of death. This study was published in the peer-reviewed journal *Epidemiology*.

Our country, our families, should have the benefit of these studies to assess the health implications of unconventional oil and gas development activities. Similarly, we should have the benefit of many robust scientific studies, on a range of critical health issues, that use data that cannot be released publicly in full because it includes personal identifiers. To exclude that body of peer-reviewed research findings would be to weaken the scientific record and undercut the accuracy and the strength of EPA's regulatory process. For that reason, Physicians for Social Responsibility opposes the proposed rule, "Strengthening Transparency in Regulatory Science." Thank you.

---

[3] Casey, J. A., Savitz, D. A., Rasmussen, S. G., Ogburn, E. L., Pollak, J., Mercer, D. G., & Schwartz, B. S. (2016). Unconventional natural gas development and birth outcomes in Pennsylvania, USA. Epidemiology 27(2), 163–172. doi: 10.1097/EDE.0000000000000387